

<VALLEY 101 THEME SONG FADES IN>

KAILA: Welcome to Valley 101, a podcast from The Arizona Republic and azcentral.com where we answer the questions you ask about metro Phoenix. I'm your host, Kaila White. Today we've got a host of questions about the light rail <beep beep sfx>

KAILA: The light rail debuted in 2008 as a new public transit option that proponents hoped would propel Phoenix into the big leagues of cities. It started as 20 miles long, then jumped to 26 miles and now it's 28 miles. It extends from 19th and Dunlap Avenues on the northwest end to downtown Mesa on the southeast end. But since its opening, a little over a decade ago, people have a lot of questions about it. To start, why'd we build the light rail? Or...

Lauren Aguirre: Why's the light rail designed the way it is?

Brent Carrell: Yeah, I wanted to know if the light rail system has been successful since it was implemented.

Tyler Gordon: I just wanted to know, like, why Phoenix chose a light rail over a monorail?

Priscilla Totiyapungprasert: My question is, is there more crime along the light rail?

KAILA: We also received questions about whether it hurts nearby businesses and whether it costs more than a bus or a car. Lucky for you guys, we have a resident expert on the light rail. She's a reporter in our newsroom, Jessica Boehm. She and producer Taylor Seely will answer your questions.

<VALLEY 101 THEME SONG FADES OUT>

<light rail noises underneath the below conversation>

Jessica: My name's Jessica Boehm. I've been a reporter at The Arizona Republic since 2015 and I cover the city of Phoenix.

Taylor: Which, of course, includes the light rail.

Jessica: Absolutely, yeah. And actually, transportation is one of my favorite passion topics. I love covering it.

Taylor: That's definitely not nerdy at all.

Jessica: Of course not. I'm totally cool.

Taylor: Alright well then let's get into our first question.

<ding sound effect (sfx)>

Taylor: Jessica, why *did* the light rail come to Phoenix?

Jessica: To answer this question, we spoke tooooo....

Scott Smith: Scott Smith, Valley Metro CEO.

Jessica: Valley Metro is the regional public transit agency that offers people rides. It operates the light rail, the buses, dial-a-rides. All those taxpayer-funded amenities. I asked Scott about when people first starting talking about light rail in Phoenix, and how that conversation progressed.

Scott Smith: Well the interesting thing is we have a history of rail back in the before nineteen fifty

Jessica: You heard that right. From [1887 to 1948](#), Phoenix had a streetcar system. <50s music> The first cars were pulled by *mules* east and west along Washington street <trotting noise>... But the streetcars really took off in the 20s. They were electric by that time and traveled at a whopping 15 miles per hour. <streetcar sfx> But when the depression hit, maintenance took a turn for the worst. <dreary old timey music> Plus automobiles were growing more and more popular. <honk honk> The final nail in the coffin was a fire that destroyed all but six of Phoenix's streetcars in 1947. <firetruck siren> And in 1948, the streetcars ended... <old timey music fades out>

Jessica: Scott said the street cars never really faded out of public memory though.

Scott Smith: But that was that was always lingering in the back of people's minds as to why can't we have that kind of a system.

Jessica: In the 1980s, Phoenicians took notice of the first light rail in San Diego. It prompted conversation here in the Valley.

Scott Smith: The notion that rail could succeed in a Western car centric city started to come alive in the early to mid eighties and people in Phoenix start talking about it. [00:05:12]

Jessica: In 1989, regional leaders asked Maricopa County voters to approve a plan called Val Trans, which would have brought 100 miles of elevated tracks to the Valley. The voters gave it a big, whopping, "NOPE." But transit fans kept trying. In Phoenix, voters turned rail down another two times in the Nineties. And then finally, in 2000, they said yes. And a few years later, the rest of the Valley said "yes," too.

Scott Smith: It passed overwhelmingly region wide and the system began construction in 2005 and opened in 2008 as a 20-mile system - by the way, the largest single day opening of a rail system in U.S. history: 20 miles. That was a monumental accomplishment, but it was a dream that really was 25 almost 30 years in the making. And we've gone from there.

Jessica: So there you have it. Why'd the light rail come to Phoenix? We thought it would help with growth, bring development and fill the void left by our defunct street car system. But, if you ask me, I'm pretty sure the main motivation was this: We wanted to put Phoenix on the map as a cool, big city. And what do all cool, big cities have? You guessed it. A rail system.

Taylor: I mean, to be clear: I think we're cool regardless of our transit. Just saying.

Jessica: Obviously.

Taylor: So, on to our next question!

Brent Carrell: My name is Brent Carrell. I live in downtown Phoenix, and I'm curious as I've seen ridership pick up and a lot more activity along the light rail, but I wanted to see if it's been successful enough to where we will see further expansion.

Taylor: To give you a qualitative answer, we talked to the people who know it best: the riders. Ya know: power to the people!

<light rail sounds>

<feet clanking walking to light rail>

Taylor: I met up with Jessica at the Rural and University light rail stop.

Taylor: 1:35 Hi!

Jessica: Hi!!!>

Taylor: *That* morning and then again that afternoon, we set out to interview riders.

Jessica: We wanted to know: What was their take on the light rail?

Jessica: So for you, do you think the light rail is successful?

Abraham: I think so! Since it's been here. I mean, I've lived in Arizona my whole life and I've used it since it came out. So.

Taylor: We also asked about safety.

Jessica: Some people worry about safety: Do you feel it's unsafe to be on here?

Abraham: Sometimes, yes. I mean, just 'cause I know some neighborhoods are bad, you know. But like, I don't usually feel threatened. I think it's only happened like one time with a really like intoxicated passenger, but other than, that was like years ago. I haven't really experienced anything like it before. Or again. So.

Jessica: Do you typically feel safe on the light rail?

Vinnie: Yeah, I mean I don't really ride it late at night. Just during the day. I feel pretty safe. They have the security that does around checking tickets and stuff. So I feel pretty safe.

Jessica: There was one man we spoke to though who said he always felt like he had to be on guard on the light rail.

Jacob: It's just having to be aware. You can tell if it's not safe or not. I've seen people go on drugs on the light rail. So it's just being aware, being safe.

Jessica: He wasn't the only rider who mentioned drugs. Take Vinny, for example. He's a student at Arizona State University.

Vinny: I've passed it before where I've seen people doing heroin on the train stops. So yeah.

Jessica: That's not great.

Vinny: Not a good experience, no.

Jessica: But not every *uncomfortable* experience was necessarily *bad*. Some of them were .. dare I say -- funny. Take for example, a man who said he saw a pig on the train once.

Shaun: I saw a couple bring a pig on the light rail a couple days ago actually, so I have a picture of that.

JB: Oh my gosh! Why where they- why did they have a pig?

Shaun: Well, I don't know. I didn't ask them. *laughs*

JB: Never a dull moment.

Shaun: No!

Taylor: There was another ASU student named Leandra Matthews, who shared this story:

Leandra Matthews: Um, I don't know. Um, I think last semester I was having a really bad day, and then like some lady with some kind of intuition, she was just like -- she was like one of those old fashioned ladies, she was like, "It's OK baby." Like "It's ok!" *laughs* And for some reason, I felt like: She right. It's gon be OK!

Jessica: I love that, that's awesome!

Jessica: To answer this a little more quantitatively though: Yes, you will see expansion in the future. The current plans are for the light rail to increase from 28 miles, the length of it today, to about 50 miles by the year 2030.

Taylor: And if you were to measure success by the ridership, that has certainly surpassed expectations. In 2018, the light rail transported 50,000 riders a day. Valley Metro didn't expect to reach that number until 2020. Though it is worth noting, in the last year, light-rail ridership slipped by about 725,000 riders.

Jessica: In terms of investment, Valley Metro estimates \$11 billion in private and public investment has sprouted within a half mile of the light-rail line since 2008.

TAYLOR: So, is the light rail successful? The truth is, that answer varies from person to person because it depends on how you measure success. Jessica, what's the next question?

Jessica: This one <ding> came from someone inside our newsroom actually.

Lauren: I am Lauren. I live in Phoenix, And I ride the light rail every day. My question is about the design of the light rail trains. I was just curious about who designed them. And why they look the way they do? // I just think it's interesting. There could be more seats on them.

Taylor: Lauren's a web producer who sits about 100 feet away from me, by the way. Hi Lauren! So I did some research on this question and found some pretty interesting information.

<music>

Taylor: In 2008, when the Light Rail debuted, The Arizona Republic printed an article with the title, "Light Rail provided unique challenges for lead designer." The lead designer was a man named John Swanson, and he had designed light-rail vehicles in France, Germany and the United Kingdom.

One of the obstacles he had to overcome in designing a light rail for Phoenix was managing the heat. That's because some of the electrical components in the rail don't do well in climates like Arizona. Also, I think it goes without saying, but *people* don't do well in high heat situations either!

So to confront that challenge, first he made the paint on the light rail's exterior reflective, to keep heat out. Second: the vehicles are insulated. *And*, third, he doubled the number of air conditioning units.

Jessica: That would explain why the a/c is so loud in there!

Taylor: Yes, exactly!

Jessica: What about the question of seating? Did you find out whether or not Valley Metro put effort into maximizing seating?

Taylor: I spoke to Susan Tierney, the communications manager for Valley Metro about that. Here's what she said:

Susan Tierney: Well we really looked to maximize the space that we have in each car. And also provide comfort. Our fleet is bi-directional, so it goes both east and west and then some days both north and south and what we look at is seats that will provide you the opportunity to travel facing forward. ... We also want to maximize comfort and safety. We provide ADA seating, we have level boarding. So what happens is if you are in a wheelchair or mobility device, you'll be able to just roll onto the fleet [4:10] and then sit into a spot that has been reserved for ADA. ... 4:23 We have 66 seats in each light rail vehicle and a comfort capacity of 175 passengers. We also have four wheelchair positions and four bike racks. [4:35]r

Jessica: Well, we got one more question about the design of the light rail. <ding sfx> And that one came from....

Tyler Gordon: Hi, I'm Tyler Gordon. I just wanted to know, like, why Phoenix chose a light rail over a monorail? The reason I was asking is because my dad told me there was a big debate about it or something.

Taylor: So I'll be transparent and admit: I didn't know what the difference was between a light rail and monorail when we got this.

Jessica: Me either. The only thing I think of when I hear the word "monorail" is Disneyland. But it turns out, whenever cities debate rail options, apparently monorails always come up. It's such a cliché that The Simpsons spoofed it once:

Lanley: Alright! I tell you what I'll do. I'll show you my idea. I give you the Springfield monorail! *Crowd oohs*

Lanley: Well sure, there's nothing on earth like a genuine, bonafied, 6-car monorail! What'd I say?

Person: Monorail!

Lanley: What's it called?!

Person: Monorail!

song about monorail starts and we'll fade it out underneath Jessica's next line

Jessica: Anyway, I called David King, a professor at Arizona State University who studies public transit to figure out the difference between a light rail and monorail.

David King: A monorail is a train that operates on a single track, rather than a light rail that operates on a dual track like a conventional train. A monorail can either hang on an elevated track or it can sit on top of a raised individual rail that would sit in the middle of the floor of the train.

Jessica : So why do people typically seem to choose light rail over a monorail?

David King: A light rail is far more compatible with city living. We think of monorail as the future - and they have always been thought of that way - Disneyland has their monorail, which is what most people think of when they think of a monorail, but monorails come with far more infrastructure that doesn't work with walkable communities and what we want. You either have to have elevated infrastructure where the monorail would hang - and that creates visual blight that a lot of people don't like because it's a fairly large set of infrastructure. Otherwise, you'd have a fairly substantial single rail that pokes up from the ground, which would be a curb that sits up one or two or three feet that the train would sit on. And so that curb would have to exist, and that would obviously be very difficult for an intersection because you wouldn't be able to have cars crossing over this monorail track. So it's not all that compatible with having a pedestrian environment or interacting with cars.

Taylor: So I guess there we have it! Alright, on to the next question. <ding sfx>

Priscilla Totiyapungprasert: My name is Priscilla Totiyaprungpasert and I use the light rail, but I've heard a lot of people say they're against light rail expansion because they think it brings crime to their neighborhood. But I haven't seen any sources or stats to back this up.

Taylor: Priscilla was also curious, Jessica, if this hurts nearby businesses.

Jessica: So these questions come up a lot. And I'm going to warn you in advance that it's very hard to give a definitive answer on either of these

Let's start with crime. I hear from the neighbors who live near the 19th Avenue light rail stations a lot. They wholeheartedly believe that light rail has brought more crime and homelessness to their area. And in 2016, police calls near the light rail platform near that area increased by 37 percent. Now one could say that's proof that yes indeed, crime rose. But police *calls* don't necessarily mean crime actually rose. There needs to be more research before we can say for certain. CityLab, a niche news site that focuses on urbanization, looked at transit's relationship with crime nationally a few years ago. The site found that often there's more of a perception of heightened crime than there is actual crime.

Taylor: That's interesting! Yeah, I remember you asked Scott Smith, the CEO of Valley Metro, about crime too.

Jessica: Yes, here's what he said.

Scott Smith: Our incidents of crime and other things are very very rare. They happen because you're putting people together but they're very rare. *// I do think that in the past there were behaviors on our light rail that while they didn't rise to the level of criminal behavior we didn't do as good a job. We didn't have the tools really to enforce it. //* So we do have a perception issue.

Jessica: Today, Valley Metro now offers riders a free app they can download on their smart phones to discreetly alert the city to questionable behavior. That app is called [Alert Valley Metro](#). There are also phone numbers listed inside the light rail cars that riders can call.

Taylor: So how about the impact on business?

Jessica: As far as light rail's impact on businesses, I talked to Julian Nabozny, who owned a McDonald's at 24th and Washington streets for years. When light rail came in front of his shop, well, I'll let him tell you about it...

Julian Nabozny: When construction actually started, we saw a substantial decrease in sales. Very many of our customers chose different locations to go and buy their food. Many changed their travel plans to avoid going through the construction. We had to lay off some. Not lay off, but not hire as many people as we had projected.

Jessica: And when construction was over and the trains started rolling...

Julian Nabozny: Actually, we did not recover because people develop different habits, especially driving habits, and they learn to avoid that area. *//* And we did not actually recover our loss of sales, loss of customers.

Jessica: When we talked to Scott Smith we asked him about this, and he admitted that, yes, construction is really difficult on businesses.

Scott Smith: We know the challenges that businesses face when we're building because we've lived through that with the businesses.

Jessica: Scott said Valley Metro is trying to improve its business outreach program with each light rail project. They offer business assistance classes, marketing tools and they're starting to look at some financial support. He also said that not all businesses are impacted equally and some aren't impacted at all.

Scott Smith: Believe it or not some businesses actually see an increase in sales during light road construction. We experience that both in Mesa and

on 19 North other businesses a huge decrease so it's hard to tell the impact that they have.

Jessica: There's also great concern over gentrification. Recently in Phoenix, there was an election to end any future light rail expansions. It failed, so the rail *will* expand. But the people who didn't want the expansion feared light rail would drive up rents and force out family businesses.

Taylor: OK, so the sixth and final question <ding> is about the affordability of light rail versus other transportation options.

Taylor: I spoke to [Deborah Salon](#), an assistant professor at ASU who studies transportation planning in cities about this.

Deborah: The light rail is more expensive. Period. It's really a lot more expensive. You have to put light rail infrastructure in the road, whereas for a bus you don't need to do that. But a light rail is a lot more permanent. Just for that reason.

Taylor: Scott Smith also mentioned the high startup costs but he said he encourages people to think about the long lifecycle of the light rail.

Scott Smith: It is a high upfront costs. Just like your house is a high upfront cost but you expect to live in your house for not five months but five years 10 years 20 years and so you're willing to spend that. // That's really how you have to look at infrastructure projects like light rail. This has a 50 to 80 year life cycle.

Taylor: On top of the life cycle, Deborah from ASU said the permanence of light rail can spur development and help an area's economy.

Deborah Salon: So when you put a permanent piece of infrastructure in to be part of the of the landscape of a city, then it actually changes the city in important ways. Right. It focuses development around that new piece of infrastructure in a way that a bus line doesn't. Because when you say, OK, I'm going to put a bus down this street, no developer is going to make long term decisions based on that bus being there because the city might tomorrow decide to move the bus route in a different place. So that's a big reason why sometimes cities really prefer to put more long lasting permanent infrastructure.

Taylor: Deborah also said light rail can help with things like traffic by reducing the number of cars on the road. It can also help people who don't have access to their own car.

Deborah: When you're talking about transit versus roads especially that gets into a lot of questions about equity. Equity of access.

<music> What do we as a society care about? And those are big policy questions. It's a different kind of question than a bang for bang for my buck question. It's a societal question.

Taylor: So maybe in addition to asking about the cost, we also ask ourselves: what's it worth?

<fade out music>

<theme music out>

Kaila: Hey, it's Kaila again. Taylor and Jessica thanks for answering all those questions. Jessica, I know you've followed the light rail for a long time. Did you learn anything new about it during this process?

Jessica: I did actually! I had no idea that our first street cars were pulled by mules. That just blew my mind. And I also really enjoyed learning more about Monorails. I really didn't realize their practical use beyond, well, Disneyland. So that was fun to learn about.

Kaila: Taylor, what about you?

Taylor: I think for me it was interesting to begin thinking about the value of public transit to society and how it changes a community.

JESSICA: You know Taylor, I think about that a lot. Not just public transit but our transportation system in general is really critical to the lives of all Arizonans. It's how we're able to access good jobs, it's how we're able to access affordable housing. And without a reliable transportation system that works for everyone, our economy will truly never be successful.

Kaila: That's a great point and all listeners, that's exactly what I meant when I said she's very passionate about transportation. Well, that's it for today. Thank you so much for listening to Valley 101, a podcast from The Arizona Republic and azcentral.com. See you next week.

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